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Authors: Dong Li, Man Chen, Song Zhao, Aiwu Zeng

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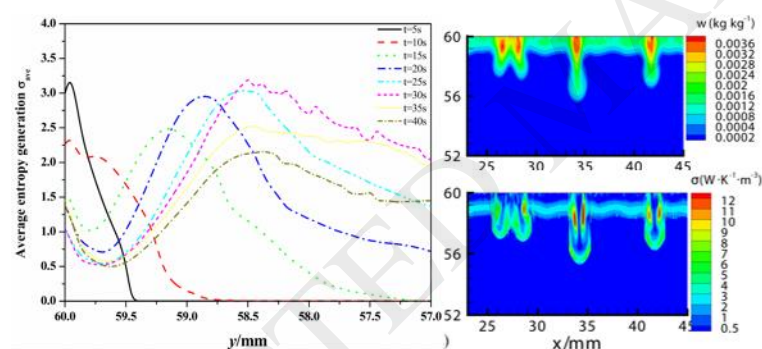
Entropy generation analysis of Rayleigh convection in gas-liquid mass transfer process

Dong Li, Man Chen, Song Zhao, Aiwu Zeng*

State Key Laboratory of Chemical Engineering, School of Chemical Engineering and Technology, Tianjin University, Tianjin 300072, China

* Correspondence: Prof. Aiwu Zeng (awzeng@tju.edu.cn). State Key Laboratory of Chemical Engineering, School of Chemical Engineering and Technology, Tianjin University, Tianjin 300072, China.

Graphical abstract



Highlights

- Entropy generation is first applied to explore an unsteady mass transfer process.
- The critical value offers a quantified thermodynamic criterion for the transient state.
- Rayleigh convection enhances mass transfer by reducing the local irreversibility.
- Rayleigh convection changes the irreversible route with the ordered plume structures.

Abstract

The exploration of the transient state of Rayleigh convection is implemented via the entropy

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